

breadth from the occipital border; the latter concave, marginate. Eyes slightly behind middle of sides, moderately large and prominent. Head, excluding mandibles, a shade longer than broad, broader at base of mandibles than at occiput, thickest at vertex, the sides convex, the occipital angles evenly curved from the eyes.

Promesonotum broader than long, the anterior border sinuate, the lateral angles with a small sharp tooth, the sides convex, narrowing rapidly from the commencement of the mesonotum to the suture, where it is about $\frac{2}{3}$ as broad as in front. In profile the promesonotum is evenly convex, widely and shallowly emarginate at the meso-epinotal suture. Base of epinotum nearly twice as long as the declivity, feebly convex, the angle joining the two rounded.

Petiole from above nearly twice as long as broad, the sides almost parallel, narrowing slightly at the anterior $\frac{1}{4}$, in front of which the sides expand into two small projections. In profile it forms an oblique angle at the centre of the upper surface, and is slightly thicker behind; beneath it is feebly concave except in front, where it forms an angle but not a tooth. Postpetiole from above $\frac{2}{3}$ as long as broad, nearly 3 times as wide behind as at its junction with the petiole, the posterior border transverse. In profile it rises to its highest point $\frac{1}{3}$ from the posterior border. Beneath in front is a blunt process. First segment of gaster $\frac{3}{4}$ as long as broad, broadest behind, the anterior border concave. The remaining segments are almost entirely concealed beneath the first.

Moderately shining. Mandibles strongly striate at base, feebly elsewhere, with a few small scattered points. Clypeus microscopically reticulate with one or two shallow indistinct punctures at the sides of the central portion, and one or two strong lateral ridges running parallel to the frontal carinae. The lateral portions finely reticulate. Scapes with minute points. Between the frontal carinae is a short longitudinal impression. Whole of head above and below covered with small round clean-cut punctures, and in addition the surface, particularly at the cheeks and between the frontal carinae, is microscopically reticulate.

Dorsum of thorax punctured similarly to the head, but not quite so densely. Sides of pronotum superficially reticulate only, rest of sides with widely-spaced punctures. Pedicel covered with punctures smaller than on rest of body, and in addition has a denser ground reticulation. Legs smooth, tibiae with a few points. Basal border of first segment of gaster edged with extremely short longitudinal striae, the rest microscopically reticulate.

Swan River, West Australia. (J. Clark, no. 488) Type in my collection.

The formation of the clypeus is curious, and separates the insect from the sub-tribe *Podomyrmini*, though its general facies is extremely like *Podomyrma*. The dense puncturation is unlike that of any *Podomyrma* with which I am familiar.

New races and forms of Palaeartic Grypocera.

By ROGER VERITY, M.D.

Erynnis lavatherae, Esp., race **australissima**, mihi.—Oberthür in his *Ét. Lep. Comp.*, IV., p. 372 (1910), points out the striking difference of aspect between the race of the mountains of Central Europe and the Pyrenees and that of Spain, Sicily, Algeria and Syria: smaller size, dark markings larger, giving it on the whole a much darker appearance; females, especially, of a reddish brown; on the underside of the hind-wings bands similar to those of *E. marrubii* (*boeticus*) are more or less plainly discernible. This race, in some specimens so much approaches the latter species, that Oberthür, who at that time did not know the *genitalia*, concluded it was impossible to draw the line between them. In Vol. V. (1911) he again returns to this subject in *part 1st*, p. 194, and in *part 2nd*, p. 99, quoting Charles Lecreuzé's conclusions on the *genitalia*. On pl. XLIV. he figures the race I have mentioned from

Sebdou (fig. 603) and Lambèse (fig. 604) in Algeria. In Vol. X. (1915) he describes, figures and names *rufescens* (fig. 4433) a peculiar female form from Algeria (Sebdou) with forewings of a bright, clear, fulvous tinge. This individual form, however, is quite different from the average aspect of the race, as in fig. 603 and 604. I propose taking the latter as "types" of the race and naming it *australissima*, it being a more extreme grade along the same line of variation as my *australior* described from Tuscany in *Ent. Rec.*, 1919, p. 27.

Erynnis marrubii, Rambur, *Faune Andal.*, II., p. 323 (1840) = *boeticus*, Rambur, *l.c.*, pl. 12, fig. 3-4, and foot note to p. 323, stating the latter name "is borne by the figure by mistake." There is in connection with these names a mystery which baffles me and of which I would be glad to get an explanation. Boisduval in his *Genera et Index Meth.*, of 1840, gives the specific name correctly as *marrubii*, followed by *boeticus* as *in litt.* Herrich-Schäffer, in 1843, figured it very well under the name of *marrubii*, although he attributes the name to Boisduval, and he considers it a variety of *malvarum* (= *altheae*). Why then does Rambur himself in the *Catalogue Léop. Andal.*, p. 80 (1858), adopt the name of *boeticus* and only mention *marrubii* as *in litt.*? Why do all subsequent authors take up *boeticus* and always quote only the figure of the *Fauna*, completely ignoring the text, and referring to that of the *Catalogue* as if it were the original description? Staudinger goes so far as to state pages 305 to 336 of the *Fauna* were never published. The same thing has been done by himself, Kirby, Oberthür, and others, in connection with the species of *Hesperia* discovered by Rambur. In the case of the *Erynnis* in question here, it seems to me the Rules of Nomenclature oblige us to go back to the original name of *marrubii*. Also on this species Oberthür makes many remarks in the volumes quoted and he gives figures of its variations, to which he adds in Vol. XVI. (1918) some on pl. 50 illustrating an important paper by Gédéon Foulquier, p. 255. No attempt is made, however, to fix by names and to classify the geographical and seasonal variations. The following is a brief summary of my own conclusions, which quotations of Oberthür's and Reverdin's beautiful figures will, I hope, make quite clear:

Race *octodurensis*, Obth., *l. c.*, V., 1st part (1911), p. 195, pl. 64, fig. 611-12; Reverdin, *Bull. Soc. Léop. Genève*, 1913, pl. 21, figs. 6 and 13: the dwarf race produced in the Valais, the most northern locality of the species.

Race *fulvescens*, mihi: I. gen. *grisea*, mihi; II. gen. *fulvescens*, mihi; III. gen. *aegra*, mihi.—This is the race of Rognac, near Marseilles, which Foulquier, *l.c.*, has carefully worked out. He has found the I. gen. from the beginning of May to the beginning of June; the II. at the end of June and beginning of July; the III. in September and October. He makes out four generations, but the very facts he describes show it is impossible and that *marrubii* has exactly the same three emergences as *alcae* and *altheae*. At page 261 he describes the features characteristic of these three emergences, which are quite obvious in the specimens he has sent me and correspond exactly to his figures. The I. gen. has a cold tone of grey on both surfaces and in consequence also the bands on the underside of the hindwing are of a cold iron grey, as well shown by Oberthür's figure

4162; this author had already figured a similar May specimen from the Pyrenees (fig. 610); Reverdin, *l.c.*, figures one from Granada in Andalusia. This generation does not seem to vary geographically, much the same as in *alveae* and *altheae*. The II. gen. of Marseilles has a decided tinge of fulvous on both surfaces, although the dark patches of the upperside are as broad as in the I. gen.; the bands of the underside are described in French as "sombre yellowish," which I should convey as light tawny, very well reproduced by Culot in Oberthür's figure 4165; the III. generation's chief feature is its small size; in tone of colour it is intermediate between the two others on both surfaces (fig. 4164 and 4166). For these three generations I propose the names given above; I have chosen descriptive and not local names, because in other localities *marrubii* varies broadly individually and produces these forms commonly; for instance, in more southern races *fulvescens* often appears amongst the late individuals of the I. gen.; others contrast with them by being patched on upperside with moss-green (form *viridescens*, *mibi*).

Race *fulva*, *mibi*: I. gen. *grisea*, Vrtý.: II. gen. *fulva*, *mibi*; III. gen. unknown: In Spain one meets with a race which in the II. gen. accentuates very much the intensity and brightness of the fulvous tinge, so that on the upperside it is of a rich chestnut colour and the bands of the underside are of a clear tawny or sometimes even of a pale salmon tinge. The August male from Ambouilla (Pyrénées Orientales) figured by Oberthür (fig. 609) approaches this form, but some specimens from Cuenca in Nueva Castilla reach a brighter tone. At this altitude of 1200m. the I. gen. goes on emerging as late as the middle of July and it is then overlapped by the beginning of the II. gen. Having thus drawn out the variations of this species, I must confess I do not feel equal to placing exactly Rambur's typical figure: it is a female; the upperside by its cold gray colour with a slight tinge of violet on forewing suggests the I. gen., and so does his description; the bands of the underside of the hindwing are represented somewhat roughly by a mixture of yellowish and of grey patches, which does not convey well anything seen in nature; in the text they are described as fulvous. Probabilities seem to be that it is one of the individuals of the I. gen. which approach *flavesceus*, as one might expect to find particularly frequently in such a southern region as Andalusia.

Race *rostaquoi*, Vrtý., *Ent. Rec.*, 1919, p. 27: I must pass a severe judgment on myself for describing the race of Central Italy from a single specimen collected on August 4th, at Oricola in the Abruzzi. Until more materials are procured we will not really know its characteristics. This specimen has a remarkably faint tinge of fulvous on both surfaces for such a late date. What strikes one particularly about it is the extent and sharpness of the white spaces on the upperside. It is, anyhow, unquestionable it belongs to this species.

Erynnis stauderi, Reverdin, *Bull. Soc. Léop. Genève*, 1913, p. 225, pl. 21, fig. 5 and 12, II. gen.? *fulvissima*, *mibi*, and *E. oberthüri*, Vrtý., *Ent. Rec.*, 1919, p. 27, race *ambigua*, *mibi*.—In my paper just mentioned, of 1919, I named *oberthüri* the very striking insects, which Oberthür had in 1911 figured in his Vol. V., 2nd part. pl. 64, fig. 605-6 as a Sicilian couple of *boeticus*. I however overlooked the

remark Oberthür had made about his specimens from Sicily, Syria and the Taurus in 1915, Vol. X., p. 409, suggesting they were probably specifically distinct, both from *boeticus* and from the newly discovered *stauderi* of Africa. His figures certainly suggest something very different. Reverdin, *l.c.*, p. 229, had already pointed out that the Syrian example of Oberthür's fig. 607 must be a *stauderi* rather than a *boeticus* or a *laratherae*. Since then he has distinguished *l.c.* 1915, p. 203, a new species from Asia Minor (*tauricus*). The connection between these *Erymnis* will have to be settled by an examination of the genitalia and other points in their structure. Anyhow the Syrian (*Akkès*) race of fig. 607 differs prominently from all its allies and a name is necessary to designate it; *ambigua*, mihi. I regret I cannot, myself, clear up its exact position and give a full description. The *stauderi* I possess from Algeria, dated August, is quite different in colouring from the typical specimens of May figured by Reverdin, by being saturated on both surfaces with bright fulvous, very reddish in tone; on the upperside of the forewing there are no greenish gray suffusions; these are replaced by chestnut and the black patches by deep chestnut on both wings; on the underside the black of the forewing is not mixed with greenish but with reddish scales and the hindwing is, especially in the female, of a beautiful warm salmon colour. The May specimen figured by Oberthür (fig. 608) as *boeticus*, but obviously a *stauderi*, differs less from mine, but it is much less reddish. Mine, no doubt, is the generation which grows up in the parched summer season: *fulvissima*. The extreme opposite colouring is to be seen in some spring examples, which are of a cold, dark gray tone with a slight violet sheen (form **obscurata**, mihi.).

Erymnis altheae, Hb. race *floccifera*, Z.: I. gen. *flocciifera*, Z., *Isis*, 1847, p. 286; II. and III. gen. *australiformis*, Vrtý., *Ent. Rec.*, 1919, p. 27.—Reverdin, *l.c.*, p. 285, very rightly points out that Zeller's *floccifera*, described from April and May specimens of Syracuse and also one female of August 27th from Rome, is nothing but *altheae* and not *marrubii*, as supposed by Staudinger, followed by other authors. The name should thus be revived for the I. gen. of Sicily, which spreads also to the whole of Peninsular Italy. It differs from the Alpine *altheae* by being a little smaller, the black markings are less deep in tone and lesser in extent, so that the general aspect is lighter and more variegated; there is often a slight fulvous tinge on both surfaces, especially in the female sex, and the tuft of hair on the underside of the male is nearly always partly fulvous and often entirely so, as described by Zeller. A Sicilian specimen is figured by Oberthür, pl. 64, fig. 613.

(To be continued.)

Notes on a Brood of *Parasemia plantaginis*, L., and var. *hospita*, W.V.

By E. A. COCKAYNE, D.M., F.R.C.P., F.E.S.

Looking through my diary for 1901 I found I had made careful notes of a brood of *Parasemia plantaginis*, the offspring of a female with yellow hindwings and red abdomen taken at Rannoch earlier in the year. The brood consisted of 30 females all with yellow hindwings, 26 of which had red abdomens and 4 yellow abdomens, and 27 males,